



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/197,767	11/23/1998	HISASHI OHTANI	0756-1896	1677
31780	7590	12/15/2004	EXAMINER	
ERIC ROBINSON PMB 955 21010 SOUTHBANK ST. POTOMAC FALLS, VA 20165			CAO, PHAT X	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/197,767

Applicant(s)

OHTANI ET AL.

Examiner

Phat X. Cao

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 November 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached papers.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: of record.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____

ADVISORY ACTION

1. Applicant argues that even though Izumi teaches that a pixel electrode may be a transparent electrically conductive film or a reflective electrically conductive film, it would not be obvious to change Liu's device from a transmissive type LCD to a reflective type LCD by replacing Liu's transparent pixel electrode with the reflective pixel electrode as suggested by Izumi.

This argument is not persuasive because of the following reasons:

first, it appears that Applicant has misinterpreted the invention as suggested by Izumi. Izumi does not suggest that a transparent electrically conductive film or a reflective electrically conductive film can be used in any device as asserted by Applicant, but rather, Izumi clearly suggests that the pixel electrode itself can be made of either a transparent electrically conductive film or a reflective electrically conductive film depending upon the display device type which is desired for the liquid crystal display device (column 6, lines 15-20). In the other words, Izumi does not teach that a reflective pixel electrode made of a reflective conductive film is used for a transmission type display device as asserted by Applicant, but rather, Izumi clearly teaches that a transparent pixel electrode made of transparent conductive film is used for a transmission type display device and reflective pixel electrode made of reflective conductive film is used for a reflective type display device. Therefore, from the teaching of Izumi, one skilled in the art would not apply the reflective pixel electrode into the

Art Unit: 2814

transmission type display device of Fukunaga as asserted by Applicant because it does not make any senses. In contrary, one skilled in the art would apply transparent pixel electrode into the transmission type display device, and apply the reflective pixel electrode to the reflective display device, as taught by Izumi. In the other words, applying either transparent material or reflective material for pixel electrode structure disclosed by Fukunaga would be obvious because it is an intended use depending upon the type of the display device desired for the display. Thus, using reflective pixel electrode for reflective type display device and using transparent pixel electrode for transmission type display device is a reasonable expectation of success;

second, the examiner recognizes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, because Izumi clearly teaches that a transparent pixel electrode made of transparent conductive film is used for a transmission type display device and a reflective pixel electrode made of reflective conductive film is used for a reflective type display device, applying the pixel electrode structure suggested from the combination of Fukunaga and Liu into the reflective type display device or transmission type display device would be obvious because it would depend on the conductive material, which is used for the pixel electrode;

and third, Applicant fails to provide the reasons to support that why the pixel electrode structure as claimed is only critical to apply into the reflective type display device, but not the transmission type display device.

2. Regarding independent claims 3, 4, 49 and 50, Applicant argues that Sato fails to disclose "an embedded conductive layer filled in the contact holes" because Sato does not suggest that the surface of embedded conductive layer is flush with the top surface of the insulating film and an embedded conductive layer and a pixel electrode are formed in different steps.

This argument is not persuasive because it appears that the features of having the surface of embedded conductive layer flush with the top surface of the insulating film and having an embedded conductive layer and a pixel electrode formed in different steps are not required by the claimed language. Therefore, Sato's Fig. 2 does suggest the invention as claimed. Specifically, Sato clearly discloses an embedded conductive layer filled in the contact hole (corresponding to the portion of the conductive film formed in through hole 171), and a pixel electrode formed on the third interlayer insulating film (corresponding to the portion of electrode 181 formed on the third interlayer insulating film 170). It is also noted that these claims are directed to the product, no matter how it is actually made, and the patentability of the final product must be determined, not the patentability of the process, which in any case have not been presented in "product by process" claims.

Art Unit: 2814

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phat X. Cao whose telephone number is (571) 272-1703. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC
December 13, 2004


PHAT X. CAO
PRIMARY EXAMINER